

### **REMARKS**

Claims 1, 4 and 6 through 9 are pending in the case.

Claims 2, 3, 5 and 10 through 20 have been canceled.

Claims 1, 4, 6 and 7 have been amended

### **Rejection of claims under 35 U.S.C. § 102 and 103**

Examiner has rejected claims 1, 4 and 9 under 35 U.S.C. § 102(b) as being anticipated by USPN 6,226,640 B1 (Maze). Examiner has rejected claim 8 under 35 U.S.C. § 103 (a) as being unpatentable over Maze in view of USPN 5,699,462 (Fouquet). Applicant has amended the claims to overcome the rejections. Specifically, Applicant has amended independent claim 1 to include some limitations formerly in claim 4. Applicant respectfully traverses the claims as amended. Below, Applicant discusses limitations within independent claim 1 not disclosed or suggested by the cited art. On the basis of this, Applicant believes all the claims dependent on claim 1 are patentable over the cited art.

### **Discussion of Independent Claim 1.**

Claim 1 sets out a heating device within an integrated circuit. The heating device includes a first conductive lead, a second conductive lead, a third conductive lead, a first resistive region connected between the first conductive lead and the third conductive lead, and a second resistive region connected between the second conductive lead and the third conductive lead. A side

formed by the first conductive lead and the first resistive region is parallel to a side formed by the second conductive lead and the second resistive region. An insulator is placed between the side formed by the first conductive lead and the first resistive region and the side formed by the second conductive lead and the second resistive region, except for at least one area directly between the first resistive region and the second resistive region, the at least one area including a third resistive region immediately adjacent to the third conductive lead. The third resistive region is in electrical contact with both the first resistive region and the second resistive region. This is not disclosed or suggested by the cited art.

Particularly, Examiner has argued that substrate 901 is equivalent to the third resistive region set out in claim 1. This is incorrect.

Substrate 901 is silicon that has been treated using either thermal oxidation or vapor deposition techniques to form a thin layer of silicon dioxide thereon. See Maze at column 8, lines 50 through 52. Heater resistor 501 is placed on substrate 901. See Maze at column 8, lines 42 through 45.

Substrate 901 does not qualify for the resistive region set out in claim 1 because the layer of silicon dioxide makes it an insulator with respect to resistor 501. Additionally, substrate 901 is located under resistor 501 and is not located between sides segments 1305 and 1307 of resistor 501.

If substrate 901 acted as a resistor between sides segments 1305 and 1307 of resistor 501, as suggested by Examiner, this would render heater resistor inoperable. In order for resistor 501 to operate correctly it is essential that the

heating elements 1305 and 1307 not be shorted out by substrate 901. This is why substrate 901 is treated using either thermal oxidation or vapor deposition techniques to form a thin layer of silicon dioxide (insulator) thereon. See Maze at column 8, lines 50 through 52. The thin layer of silicon dioxide provides electrical insulation and not electrical connection.

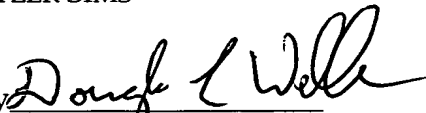
Nothing in Maze discloses or suggests at least one area including a third resistive region immediately adjacent to a third conductive lead where the third resistive region is in electrical contact with both a first resistive region and a second resistive region, as set out in claim 1.

#### Conclusion

Applicant believes this Amendment has placed the present application in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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